

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (canceled)

2. (withdrawn): The engine of Claim 1, wherein said oil pump is separate from said camshaft, said oil pump in fluid communication with at least a portion of said camshaft via an oil supply passage.

3. (previously amended): The engine of Claim 6, wherein said oil pump comprises an oil pump member mounted on said camshaft, said oil pump member rotatable with said camshaft to generate said oil pressure.

4. (original): The engine of Claim 3, wherein said oil pump member comprises an impeller including a body portion, said impeller generating oil pressure upon rotation of said camshaft which acts upon said body portion.

5. (canceled)

6. (currently amended): An internal combustion engine, comprising:
an engine housing;
a crankshaft, connecting rod, and piston assembly disposed within said engine housing, said piston reciprocable within a cylinder bore to define a variable volume combustion chamber;
an oil sump disposed within said engine housing and containing oil;
a camshaft rotatably supported within said engine housing in timed driven relationship with said crankshaft at opposite ends of said camshaft within first and second

bearings carried by said engine housing, said camshaft translatable axially between first and second positions, said camshaft further comprising:

at least one cam lobe periodically engaging a valve; and

at least one auxiliary valve actuator axially spaced from said cam lobe, said auxiliary valve actuator engaging said valve in said first camshaft position and not engaging said valve in said second camshaft position; and

an oil pump in fluid communication with said oil sump, oil pressure generated by said oil pump acting upon at least at --a--portion of said camshaft to translate said camshaft from said first position to said second position at high engine speeds, said oil pressure insufficient at low engine speeds to translate said camshaft from said first position to said second position; and

said camshaft further comprising a longitudinal bore therethrough, said bore fluidly communicating said first and second bearings with one another, said oil pump pumping oil from said first bearing to said second bearing through said bore.

7. (previously amended): The engine of Claim 6, wherein in said first camshaft position, said at least one auxiliary valve actuator engages said valve during a compression stroke of said piston to open said valve and vent pressure from said combustion chamber.

8. (previously amended): The engine of Claim 6, wherein in said first camshaft position, said at least one auxiliary valve actuator engages said valve during an expansion stroke of said piston to open said valve and allow entry of fluid into said combustion chamber.

9. (withdrawn): The engine of Claim 1, wherein said camshaft includes a pair of said auxiliary valve actuators, wherein in said first camshaft position, one of said auxiliary valve actuators engages said valve during a compression stroke of said piston to open said valve and vent pressure from said combustion chamber and the other of said auxiliary valve actuators engages said valve during an expansion stroke of said piston to open said valve and allow entry of fluid into said combustion chamber.

10. (withdrawn): The engine of Claim 1, further comprising a spring disposed between said engine housing and said camshaft, said spring biasing said camshaft to said first position.

11. (canceled)

12. (previously amended): The engine of Claim 14, wherein said oil pump member comprises an impeller including a body portion and a plurality of impeller blades extending from said body portion.

13. (canceled)

14. (previously amended): An internal combustion engine, comprising:
an engine housing containing an oil sump having a volume of oil, said engine housing further including a cavity in fluid communication with said oil sump;
a crankshaft, connecting rod, and piston assembly disposed within said engine housing, said piston reciprocable within a cylinder bore to define a variable volume combustion chamber;
a camshaft rotatably supported in said engine housing in timed driven relationship with said crankshaft in first and second bearings carried by said engine housing, said first bearing in fluid communication with said cavity, said camshaft translatable axially between a first position and a second position, said camshaft further comprising:
at least one cam lobe periodically engaging a valve;
an auxiliary valve actuator axially spaced from said cam lobe, said auxiliary valve actuator engaging said valve in said first camshaft position and not engaging said valve in said second camshaft position; and
an oil pump member rotatably disposed within said cavity, oil pressure generated by said oil pump member acting upon said oil pump member at high engine speeds to translate said camshaft from said first position to said second position; and
said camshaft further comprising a longitudinal bore therethrough which fluidly communicates said first bearing with said second bearing, said oil pump member pumping oil through said bore to said second bearing upon rotation of said camshaft.

15. (previously amended): The engine of Claim 14, wherein in said first camshaft position, said at least one auxiliary valve actuator engages said valve during one of a compression stroke and an expansion stroke of said piston to open said valve and vent pressure from said combustion chamber.

16. (withdrawn): The engine of Claim 11, further comprising a spring disposed between said engine housing and said camshaft, said spring biasing said camshaft to said first position.

17-25. (canceled)

26. (previously presented): The engine of Claim 6, wherein said second bearing is in fluid communication with a bearing of said crankshaft, said oil pump operable during running of said engine to pump oil to said crankshaft bearing from said second bearing.

27. (previously presented): The engine of Claim 14, wherein said second bearing is in fluid communication with a bearing of said crankshaft, said oil pump operable during running of said engine to pump oil to said crankshaft bearing from said second bearing.

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Should the Examiner have any further questions regarding any of the foregoing, he is respectfully invited to telephone the undersigned at (260) 424-8000.

Respectfully submitted,

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Name of Registered Representative

Signature

February 9, 2007

Date